

## 1923 COLLECTING NOTES.

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The collecting season of 1923 in the Sand Hill country southwest of Medora, Reno County, Kansas, was one of the best in recent years. Weather conditions were especially favorable, the vegetation being abundant. Notably numerous in specimens was the large scarabæid, *Strategus mormon*, Burm., scores of examples being taken by students of McPherson College, a party of four from the State University at Lawrence, Kansas, and the writer, in May, June and the first week in July.

For the first time in a collecting experience of thirty-five years in this region, *Phyllophaga longitarsus* Lec. was taken and in abundance, at light, during the first and second weeks in July. During the day they burrow in the sand, and being almost indistinguishable in color, are never seen. They are also taken on the sand dunes of Smoky Hill river, near Manhattan, Kansas, at light.

A large scarabæid attracted by light the past season, near Medora, was *Polyphylla hammondi* Lec. Among thirty specimens coming to light the first week in July only five were females, and I have never taken a higher proportion of this sex.

The last week in June, 1902, I took at Englewood, Kansas, 175 miles southwest of Medora, numbers of a small light colored *Aphodius* which was described in 1905 by H. C. Fall, as *A. knausi*. I never took this species again until the first week in July last season when it was very abundant at light in the sand hills near Medora. No specimens were seen during the day.

In past years, occasional specimens of *Anomala ludoviciana* Schaeffer were picked up in the sand hills, but this past season during the last week in June, between 5 and 7 o'clock in the afternoon, this species was found in numbers on sand and on low vegetation, mating. They are sluggish in movement, and no net is required to take them. A form of *Anomala flavipennis, modulata* Casey, is taken at light, the first and second weeks in July.

The last of May and the first half of June, *Serica ochrosoma* Dawson is attracted to light but rarely in numbers; last season

only five were taken. They feed on cottonwood leaves during the early part of the evening.

*Bolbocerus fossatus* Say. was not very abundant, only a half dozen specimens being taken. They were mostly found in perpendicular holes, eight to twelve inches deep, in the sand, but two or three came to light.

*Cicindela lepida* Dej. was very abundant on bare sand "blow outs" and adjacent to pools of water in the "blow outs". It was very abundant the last part of June and the first half of July. The form *insomnis* Casey, with green head and thorax, occurred infrequently, not to exceed one to twenty of the ordinary form. *Lepida* is attracted to light and by carrying a gasoline lantern or using a flash light can be picked up on the bare sand.

*Cicindela hirticollis* Say. was abundant near pools of water in the "blow outs" in company with *lepida*. *Cicindela lengi* W. Horn. was more than usually common around sand dunes, the individuals taking shelter in the shade of vegetation to escape the heat of the sun. *Formosa* Say. also occurred in numbers, and is much more wary than *lengi*. The common *scutellaris* Say. was also abundant during May, June and the first part of July.

The milkweed cerambycid *Tetraopes canescens* Lec. was taken in numbers from mid-June to mid-July. Light, the first and second weeks in July, attracted several specimens of *Ochodæus kansanus* Fall.

On July 4th, four members of the Kansas University Entomological Summer Field Force, Kenneth Krehbiel and the writer visited Belvidere, Kiowa County, 150 miles southwest of McPherson, and collected on the evening of that day, July 5th, and until the afternoon of July 6th. On a salt marsh just north of Belvidere, *Cicindela circumpecta* Laf., *Cicindela* var. *globicollis* Casey, *Cicindela macra* Lec. *Cicindela knausi* Leng. and two or three specimens of *Cicindela fulgida* Lec. were taken. The first three were abundant on the salt encrusted flats, while *knausi* occurred on damp mud near water. The *circumpicta* were of the brown, green and rarely the blue form. On thistle heads several *Trichiotina texanus* Horn were taken.

In a small rock cave a mile and a half from Belvidere numbers of *Griburius montezumæ* var., a very handsome chrysolmelid were taken, resting and mating on the cave roof. A variety of this without elytral markings was found in a similar cave a week later in Ellsworth County, by the Kansas University expedition. In 1919 the writer took *Griburius montezumæ* near Bellvue, southwest Utah, in June, on live oak foliage. Their feeding habits were not noted at Belvidere or in Ellsworth County.

*Pelidnota punctata* Linn. larvæ, pupæ, and newly transformed imagœs were found in a decayed elm log on Medicine Lodge Creek at Belvidere. At light, *Phyllophaga summucida* Lec., *Polyphylla hammondi* Lec., *Cicindela macra* Lec., *Helluomorpha præusta* Dej., *Macrobasis immaculata* Say. and *unicolor* Kirby were not uncommon.

The last half of May and the first half of June, *Leonidia neomexicana* Cockerell emerged in numbers from the urn cells of *Anthophora occidentalis* Cresson, a solitary bee in the cell of which *Leonidia* is parasitic, the larvæ of *Leonidia* feeding on the food stored for the larvæ of *Anthophora*. A male and female of *Leonidia*, a few hours after emergence, were confined in a test tube. They mated at once, and the female deposited many eggs in the tube. The larvæ emerged in four or five days in large numbers. They were very small and light yellow. They lived from five to ten days and were extremely active, moving over the glass surface very swiftly for such minute animals.

*Leonidia neomexicana* was described by Professor T. D. A. Cockerell in 1898 from specimens reared from bee cells at Mesilla, New Mexico. In 1911 Professor Creighton Wellman described specimens collected in Logan and Grove Counties by the Kansas University entomological expedition in 1910 as *Hornia gigantea*. Specimens of *Hornia gigantea* placed in the hands of H. C. Fall at Tyngsboro, Massachusetts, in the latter part of 1922, and compared by him with specimens of *Leonidia* in his collection showed that *Hornia gigantea* was a synonym of *Leonidia neomexicana*.

Four specimens of *Bolboceriosoma* received from Mr. W. J. Brown, Stillwater, Payne County, Oklahoma, and one specimen

from Rush County, Kansas, proved to be *biplagiatum* D. & McC. *B. bruneri* D. & McC. seems to be distributed over central and northern Kansas, *biplagiatum* over the south half and *pusillum* D. & McC., over the northeastern part. So far, only *bruneri* has been taken at McPherson.

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## TWO MINOR PESTS FROM EUROPE (LEPIDOPTERA, PLUTELLIDAE).

We have been running a trap light again on the Cornell campus at Ithaca, New York, this year and have obtained specimens of two introduced Lepidoptera of a certain interest (see Canadian Ent. 55, 151).

**Ocnerostoma piniariella** Z. (European Pine Leaf-miner). Numerous specimens were taken in the first half of July, and the species is obviously well established. I think it has never been reported from the New World, but was taken here by Comstock in 1882. It has not been seen in the meantime, but is so minute and obscure that it has probably been overlooked. It looks like a *Coleophora*, being slender, with a slightly ruffled head, forming a sort of ragged eyecap over the bases of the antennæ, but unlike *Coleophora* it throws its antennæ back when at rest. It is nearly white when fresh, but the hind wings and under side are gray, and even slightly rubbed specimens appear ash gray. Dead specimens may be distinguished from *Coleophora* by the well developed epiphysis on the fore tibia, as well as the different venation (see Spuler, Schmetterlinge Europas, vol 2, fig. 200).

**Cerostoma xylostella** L. (Honeysuckle Leaf-roller). This striking species is well known about Boston, but appeared at Ithaca for the first time this July, three specimens being taken in the trap and another seen. It is chocolate brown with the dorsal edge of the wings and the middle of the thorax bright yellow; it throws its antennæ forward at rest like the other close relatives of *Plutella*, and this and its large bushy palpi give it a certain likeness to a caddis fly (say *Tricnodes borealis*).

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